

CLAIMS

What is claimed is:

1. A device for adjusting the height of a frame for a screen relative to a pair of opposed frame holders supporting the frame therebetween comprising:

5 a pair of shims having a predetermined thickness, each shim being positioned between the frame holder and the frame; and,

at least one fastener securing each shim to the frame holder.

2. The device of Claim 1 wherein the at least one fastener is a bolt passing through an aperture in a supporting surface of the frame holder below the frame and either into or 10 through the shim.

3. The device of Claim 2 further comprising:

a seat built into the shim, wherein the bolt passes through the aperture of the frame holder and screws into the seat.

4. The device of Claim 2 wherein the bolt passes through both the aperture of the frame holder and the shim, thereby exposing a bolt end.

- 15 5. The device of Claim 4 further comprising:

a nut for screwing onto the bolt end.

6. The device of Claim 1 wherein the at least one fastener is a pair of bolts, each passing through an aperture in a supporting surface of the frame holder below the frame and 20 either into or through the shim.

7. The device of Claim 6 further comprising:

a pair of seats built into the shim, wherein the pair of bolts pass through the aperture of the frame holder and screw into the pair of seats.

8. The device of Claim 6 wherein the pair of bolts pass through both the aperture of the frame holder and the shim, thereby exposing a pair of bolt ends.

- 25 9. The device of Claim 8 further comprising:

a pair of nuts for screwing onto the pair of bolt ends.

10. The device of Claim 1 wherein the at least one fastener is a threaded fastener.

11. The device of Claim 1 wherein the at least one fastener is a pair of threaded 30 fasteners.

12. The device of Claim 1 wherein the at least one fastener is a rivet.

13. The device of Claim 1 wherein the at least one fastener is a pair of rivets.

14. The device of Claim 1 further including:

a second pair of shims having a second predetermined thickness, each shim being positioned between either the frame holder and the first shim or the frame and the first shim; and,

5 at least one fastener securing each second shim to either the first shim or the frame holder.

15. The device of Claim 14 wherein the at least one fastener is a bolt passing through an aperture in a supporting surface of the frame holder below the frame and either into or through the second shim when the first shim is disposed between the second shim and the frame holder, or into or through the first shim when the second shim is disposed between the first shim and the frame holder.

10 16. The device of Claim 15 further comprising:

a seat built into either the second shim when the first shim is disposed between the second shim and the frame holder, or the first shim when the second shim is disposed between the first shim and the frame holder, wherein the bolt passes through both the aperture of the frame holder and either the second shim or the first shim and screws into the seat.

15 17. The device of Claim 15 wherein the bolt passes through each of the aperture of the frame holder, the first shim, and the second shim, thereby exposing a bolt end.

20 18. The device of Claim 17 further comprising:

a nut for screwing onto the bolt end.

19. The device of Claim 14 wherein the at least one fastener is a pair of bolts, each passing through an aperture in a supporting surface of the frame holder below the frame and either into or through the second shim when the first shim is disposed between the second shim and the frame holder, or into or through the first shim when the second shim is disposed between the first shim and the frame holder.

25 20. The device of Claim 19 further comprising:

a pair of seats built into either the second shim when the first shim is disposed between the second shim and the frame holder, or the first shim when the second shim is disposed between the first shim and the frame holder, wherein the pair of bolts pass through both the aperture of the frame holder and either the second shim or the first shim and screw into the pair of seats.

21. The device of Claim 19 wherein the pair of bolts pass through the aperture of the frame holder, the first shim, and the second shim, thereby exposing a pair of bolt ends.
22. The device of Claim 21 further comprising:
 - a pair of nuts for screwing onto the pair of bolt ends.
- 5 23. The device of Claim 14 wherein the at least one fastener is a threaded fastener.
24. The device of Claim 14 wherein the at least one fastener is a pair of threaded fasteners.
- 10 25. The device of Claim 14 wherein the at least one fastener is a rivet.
26. The device of Claim 14 wherein the at least one fastener is a pair of rivets.
27. The device of Claim 14 wherein the outer edges of the shims are contoured to match the supporting surface of the frame holder.
28. The device of Claim 14 wherein the shims are color coded, each pair of shims having a similar predetermined thickness having a similar color.
- 15 29. A kit for adjusting the height of a frame for a screen relative to a pair of opposed frame holders supporting the frame therebetween to selectively modify the distance of the screen disposed within the frame and a substrate being printed upon when the frame is in an off-print position, comprising:
 - a plurality of pairs of shims, each pair having a predetermined thickness and being positioned between the frame holder and the frame; and,
 - 20 at least one fastener securing each shim to the frame holder.
30. The kit of Claim 29 wherein the at least one fastener is a bolt passing through an aperture in a supporting surface of the frame holder below the frame and either into or through one shim and through any shims between the one shim and the frame holder.
31. The kit of Claim 30 further comprising:
 - a seat built into the one shim, wherein the bolt passes through the aperture of the frame holder and through any shims between the one shim and the frame holder and screws into the seat.
- 25 32. The kit of Claim 30 wherein the bolt passes through the aperture of the frame holder and each shim, thereby exposing a bolt end.
- 30 33. The kit of Claim 32 further comprising:
 - a nut for screwing onto the bolt end.

34. The kit of Claim 29 wherein the at least one fastener is a pair of bolts, each bolt passing through an aperture in a supporting surface of the frame holder below the frame and either into or through one shim and through any shims between the one shim and the frame holder.
- 5 35. The kit of Claim 34 further comprising:
a pair of seats built into the one shim, wherein each bolt passes through the aperture of the frame holder and through any shims between the one shim and the frame holder and screws into each of the seats.
36. The kit of Claim 34 wherein each bolt passes through the aperture of the frame
10 holder and each shim, thereby exposing a pair of bolt ends.
37. The kit of Claim 36 further comprising:
a pair of nuts for screwing onto the pair of bolt ends.
38. The kit of Claim 29 wherein the at least one fastener is a threaded fastener.
39. The kit of Claim 29 wherein the at least one fastener is a pair of threaded fasteners.
- 15 40. The kit of Claim 29 wherein the at least one fastener is a rivet.
41. The kit of Claim 29 wherein the at least one fastener is a pair of rivets.
42. The kit of Claim 29 wherein the outer edges of the shims are contoured to match the supporting surface of the frame holder.
43. The kit of Claim 29 wherein the shims are color coded, each pair of shims having a
20 similar predetermined thickness having a similar color.
44. The kit of Claim 29 wherein the thickness of a first pair of shims is about 1/16", the thickness of a second pair of shims is about 1/8", and the thickness of a third pair of shims is about 3/16".
45. A method for adjusting the height of a frame for a screen relative to a pair of
25 opposed frame holders supporting the frame therebetween to selectively modify the distance of the screen disposed within the frame and a substrate being printed upon when the frame is in an off-print position, comprising the steps of:
selecting at least one pair of shims from a plurality of pairs of shims, each pair having a predetermined thickness;
- 30 positioning the selected pair of shims between the frame holder and the frame; and, fastening each shim from the selected pair of shims to the frame holder.

46. The method of Claim 45 wherein the step of fastening each shim includes the step of:

passing at least one bolt through an aperture in a supporting surface of the frame holder below the frame and into each selected shim and through any shims between the selected shim and the frame holder.

- 5 47. The method of Claim 45 wherein the step of fastening each shim includes the step of:

passing at least a pair of bolts through apertures in a supporting surface of the frame holder below the frame and into each selected shim and through any shims between the selected shim and the frame holder.

- 10 48. The method of Claim 45 further including the step of:

contouring the shims to match the supporting surface of the frame holder.

49. The method of Claim 45 further including the step of:

color coding each pair of shims so that shims having a similar predetermined thickness also have a similar color.

- 15 50. The method of Claim 45 further including the step of:

making the pairs of shims with predetermined thicknesses of at least about 1/16", 1/8", and 3/16".

- 20 51. A method for modifying an existing printing press to accept a pair of height-adjusting shims comprising the steps of:

positioning each one of the pair of shims on each of a pair of opposed frame holders;

determining at least one location for an aperture on each of the opposed frame holders to facilitate fastening of the pair of shims to the pair of opposed frame holders;

25 positioning a drill bit on each of the opposed frame holders at the determined location; and,

drilling a hole in each of the opposed frame holders at the determined location.

52. The method of Claim 51 further comprising the step of:

clamping each one of the pair of shims to each of the opposed frame holders using a clamp to hold the shims in place during drilling.

- 30 53. A method for adjusting the height of a frame for a screen relative to a pair of opposed frame holders supporting the frame therebetween to selectively modify the distance

of the screen disposed within the frame and a substrate being printed upon when the frame is in an off-print position, comprising the steps of:

providing for selecting at least one pair of shims from a plurality of pairs of shims, each pair having a predetermined thickness;

5 providing for positioning the selected pair of shims between the frame holder and the frame; and,

providing for fastening each shim from the selected pair of shims to the frame holder to secure the shim to the frame holder.

54. The method of Claim 53 wherein the step of fastening each shim includes the step 10 of:

providing for passing at least one bolt through an aperture in a supporting surface of the frame holder below the frame and into each selected shim and through any shims between the selected shim and the frame holder.

55. The method of Claim 53 wherein the step of fastening each shim includes the step 15 of:

providing for passing at least a pair of bolts through apertures in a supporting surface of the frame holder below the frame and into each selected shim and through any shims between the selected shim and the frame holder.

56. The method of Claim 53 further including the step of:

20 contouring the shims to match the supporting surface of the frame holder.

57. The method of Claim 53 further including the step of:

color coding each pair of shims so that shims having a similar predetermined thickness also have a similar color.

58. The method of Claim 53 further including the step of:

25 making the pairs of shims with predetermined thicknesses of at least about 1/16", 1/8", and 3/16".